

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (Currently amended) A computer system ~~transfers~~ for transferring data from a first storage unit to a second storage unit via a network, said computer system comprising:
 - a first controller provided in the first storage unit, which transfers data stored in said first storage unit, to said second storage unit using a block transfer protocol;
 - a storage area network (SAN) through which the transfer of data using the block transfer protocol is performed;
 - a table which associates a file composed of a plurality of blocks of data with blocks of data constituting the file; and
 - a second controller which, in response to information that identifies a particular block from said first controller via the SAN, identifies a file corresponding to the particular block using said table and transfers the identified file to said second storage unit via a local area network (LAN) using a file transfer protocol,
 - wherein said SAN couples the first controller and the second controller to establish a path for the transfer using the block transfer protocol and another path for the transfer using the file transfer protocol with the LAN.
2. (Canceled)
3. (Currently amended) The computer system according to claim 1 wherein, upon detecting a transfer failure when transferring data, which is stored in said first storage unit, using the block transfer protocol, said first controller notifies information to said second controller, said information identifying a particular block concerned with the transfer failure.

4. (Original) The computer system according to claim 3 wherein the identified file includes data of blocks other than the block related to the transfer failure.

5. (Currently amended) The computer system according to claim 4 wherein the data of blocks other than the block related to the transfer failure is data that has been transferred by said first controller via the SAN using the block transfer protocol.

6. (Currently amended) A computer system that transfers data from a first storage unit to a second storage unit via a ~~first network~~ SAN and a ~~second network~~ LAN, said computer system comprising:

a first controller that transfers data[[,]] stored in said first storage unit, to said second storage unit on a block basis via the ~~first network~~ SAN; and

a second controller that transfers data, stored in said first storage unit, to said second storage unit on a file basis via the ~~second network~~ LAN,

wherein said second controller manages an association between a file composed of a plurality of first blocks of data and the blocks of data constituting the file based on a management table defining the association and, upon receiving information identifying a particular block of the plurality of first blocks from said first controller via the SAN, transfers determines a file including data of the particular block using the management table and transfers the determined file to said second storage unit via the LAN on a file basis, the file being passed from the first storage unit via the SAN.

7. (Currently amended) The computer system according to claim 6 wherein, when the transfer on a file basis fails, said second controller identifies a plurality of second blocks related to the transfer-failed file and instructs said first controller to transfer data of the plurality of second blocks.

8. (Currently amended) The computer system according to claim 7 wherein said first storage unit comprises a main volume and a sub volume that store the same contents of data and wherein, when a transfer of data [[,]] stored on said sub volume [[,]] on a block basis

fails, said first controller notifies information identifying ~~[[the]]~~ a particular block of transfer-failed data to said second controller and, in response to an instruction to transfer data of a plurality of third blocks related to the transfer-failed file from said second controller, transfers data corresponding to the plurality of third blocks ~~[[,]]~~ stored on said main volume ~~[[,]]~~ on a block basis.

9. (Canceled)

10. (Currently amended) A data transfer method for use in a computer system, which has a second controller ~~[[,]]~~ for transferring data to another computer system via a LAN, said second controller connected via a SAN to a storage system comprising a storage unit and a first controller that manages data ~~[[,]]~~ stored in said storage unit ~~[[,]]~~ on a block basis using a block address, said second controller associating information identifying the block addresses with a file identifier for managing a file composed of a plurality of blocks on a file basis, ~~wherein, upon the data transfer method comprising:~~

at said second controller,

in response to receiving of information identifying the block address from said first controller, ~~said second controller identifies~~ identifying a file identifier associated with the information identifying the block address; ~~and notifies~~

notifying information identifying a plurality of block addresses associated with the file identifier to said first controller; and ~~[[,]]~~

in response to ~~[[upon]]~~ receiving data corresponding to the information identifying a plurality of block addresses from said first controller via the SAN, ~~transfers~~ transferring data to said other computer system on a file basis with the file identifier attached to the data.

11. (Currently amended) The data transfer method according to claim 10 wherein said second controller transfers a management table, which associates the information

identifying block addresses with a file identifier, to said other computer system when data is transferred on a file basis.

12. (Original) The data transfer method according to claim 10 wherein the information identifying a block address is a logical block address.

13. (Currently amended) The data transfer method according to claim 10 wherein, upon detecting a failure during transfer of data to a storage system connected to said other computer system on a block basis, said first controller notifies the information identifying a block address to said second controller via the SAN.

14. (Original) The data transfer method according to claim 10 wherein said computer system notifies information identifying a block address to said first controller to request to transfer data on a block basis.

15. (Canceled)

16. (Currently amended) A computer-readable medium storing a program that causes a file server to transfer data to another file server via a SAN, said file server connected via a fibre channel to a storage system comprising a storage area and a controller that manages data [[,]] stored in said storage area [[,]] on a block basis using a block address, said file server associating information identifying the block addresses with a file identifier for managing a file composed of a plurality of blocks on a file basis,

~~wherein, the program, when executed, performing the following actions:~~

upon receiving information identifying the block address from said controller, causing said file server ~~identifies~~ to identify a file identifier associated with the information identifying the block address and ~~notifies~~ notify information identifying a plurality of block addresses associated with the file identifier to said controller; and [[,]]

upon receiving data corresponding to the information identifying a plurality of block addresses from said controller, ~~transfers~~ causing said file server to transfer data to said other file server on a file basis with the file identifier attached to the data via the LAN.